

**METHOD AND SYSTEM FOR RECONSTRUCTING
ABERRATED IMAGE PROFILES
THROUGH SIMULATION**

ABSTRACT OF THE DISCLOSURE

A system and method of calculating estimated image profiles.

The system and method includes providing lens characteristic data and performing simulation calculations for various levels of aberration components using the lens characteristic data. A response surface functional relation is built between selected variables of the lens characteristics, in particular the lens aberration components, and the Image Profile using the simulation calculations. Evaluation is then performed on the arbitrary specified aberration values of a lens in relation to the response surface functional relations to provide a calculated estimate of the Image Profile for the specified aberration values. A machine readable medium and exposure apparatus are also provided.